

An Ode to IUPAC

This poem represents my call to action to modernise the Union of Pure and Applied Chemistry (IUPAC)

Current world conditions
Nicely demonstrate the need
Start to nurture and grow the seed
Lively response to take the lead
Supporting Chemical collaborations

Enabled by the digital computer age
setting, refining, redefining standards
help in solving the global hazards -
energy, water, health and feed,
- we must not be bystanders

Setting Chemists front of stage
All invested in AI, not just from the tin -
basic, fair, unbiased, explainable techniques begin
decidedly changing our discipline
a new variety for our digital orchard

AI - theory, computation and experiments allied
to train the next generation,
people and facilities, from sciences,
arts and humanities – all crucial
to inform the digital native of their chemistry

Without continued effort ideas wither
dramatic short-term gains from individual drums
others balanced by the longer-term outcomes
collaboration, academic, industrial hums
the whole community come hither

Chemistry, creative science,
The future is bright
Digital is the novel way -
to decide what to make and measure
Doing all this together

Success? Yes! - and IUPAC has its part to play

My Supernova Love

By Sadie Jones

In the cold control room, blackout blinds are down.
Starting the observation, checking co-ordinates now.
Our first light curve, from the NT Telescope loads.
Screen showing Type 1a, a white dwarf's dying throws.
My very first Supernova, light captured, successfully shown.
 I am here to help, to research.
 But also, to run away...
 far from; the memories
 of us together, him and me.
 He left, so could you be
 my Supernova Love?

Last Christmas he left, walked out, cheated.
So here I am this Christmas, can't allow the cold.
How to get past the rejection; left me, for her.
Far away South America, I escape to find the warm.
Sunny days, nights observing Supernova, stars that can't go on.
 Stars from which, everything is born.
 Everywhere, you are, this mountain,
 here in Chile; new love.
 Still, my heart mourns.
 He left, so could you be
 my Supernova Love?

My Supernova who are you, new life from just a star?
Zooming in a whole Universe, millions billions to see.
Unlocking the meaning of each emission, what can it be?
Trying to work out which source is yours, first we can't be sure.
Run the code, check mass limit, observing your ionising core.
 Neutrinos settling, mass condensing.
 Every single being, born in you,
 every atom; in my blood.
 You are already, in my bones.
 He left, so could you be
 my Supernova Love?

Cold and grey England, empty house awaits me there.
On screen we've found you, a star once glowing bright.
Your curve is turning downwards, more throughout the night.
Sat here searching waiting, measuring spectra faded light.
Lines converging, super heating core, but why am I so cold?
 Life emerging, Supernova you made it all.
 Elements, you created, oxygen carbon gold,
 you are; in everything.
 Still, you are not home.
 He left, yet still it's him. He is
 my Supernova Love.

(4th attempt) – SJ 10/3/21

A Supernova love. By Sadie Jones (1st draft)

He left, you stayed.
Everywhere you are contained.
Everything I am, In me, in him.
You are life, sprung from death.
Now Gravity creates us anew.
No, the Universe, it was Too much,
The heat, my lust extended, a galaxy
A time limit, our layers unbalanced
and My core, every being imploded.
He left, you stayed
my Supernova Love.

I'm born again, Everything from you
But My atom heart is his condensed
We keep being recycled, new form
But even the grief is, birthed bright
It's gained more mass, it's true
Blinded, still I observe his full light
Time, that I could live again, with you
he's everything to me, evaporating
you stayed, he left
My Supernova love.

Reborn our Elements, same source
we are bound, both of us, it's true
The exploded matter, the same dust
How did Physics let us part, him, new
Unbound now and burning through,
Dreaming of him, all imagined.
I am me, in him, in you.
He stays My Supernova love.

We need help
by Sadie Jones

We have thousands of hours of aurorae video,
most of which has never been looked at.
We need help from Citizen Scientists.

Dazzling, coloured light
aligned with the magnetic zenith.
Roman goddess of the dawn.

Shapes and forms,
with arcs and rays.

Shimmering curtains, bands, waves.

Changing shape.

Light moves across the sky,
brighten and fade.

Charged particles in the solar wind,
toward north and south,
polar regions.

Crash.

Gases in the atmosphere,
oxygen and nitrogen.

Collisions give off light.

We have thousands of hours of aurorae video,
most of which has never been looked at.
We need help from Citizen Scientists.

Found poem

Made from a piece of text written about our citizen science project called the aurora zoo and some text from a website which explains aurora physics to children

– 2nd draft By SJ 4/3/21

Text from Impact case

ASK is fixed in position

taking data of a specific area

of the sky

aligned with the magnetic zenith.

It probes the atmosphere at 100km

altitude. ASK detectors are very sensitive,

enabling short exposure times

and allowing us to see fast movements.

ASK has been operational since

2007 and automatically takes data whenever

it is dark.

We now have thousands of hours of video footage

of the aurora,

most of which has never been looked at.

To date our research has consisted of “event studies”,

where we have investigated

specific auroral events

in detail,

but we wanted to be able to do statistical studies

on the ASK data

which is where we needed help

from Citizen Scientists.

Text from Internet <https://kids.britannica.com/kids/article/aurora/399350>

Auroras are dazzling displays of coloured light that sometimes appear in the night sky.

They occur in Earth’s far northern and far southern regions. In the Northern Hemisphere

such a display is known as aurora borealis, or the northern lights. In the Southern

Hemisphere it is called aurora australis, or the southern lights. Auroras are named after

Aurora, the ancient Roman goddess of the dawn.

Auroras take many shapes and forms, with arcs and rays of colored light being the most

common. The light may also look like shimmering curtains, bands, waves, or clouds. An

aurora constantly changes shape as the light moves across the sky. The light also may

brighten and fade.

Auroras are caused by the [Sun](#). The Sun sends out a stream of electrically charged particles called the solar wind. The solar wind travels from the Sun toward the Earth at great speed.

The Earth is a huge magnet surrounded by a magnetic field. The Earth's magnetic field forces the charged particles in the solar wind toward the planet's northern and southern polar regions. The particles move downward through the Earth's upper atmosphere. As they do, they crash into atoms and molecules of gases such as oxygen and nitrogen. These collisions cause the atoms and molecules to give off light. This light is an aurora. An aurora's colors are determined by the different gases that give off the light.

The Journey
by Sadie Jones

So,
super
massive
black
holes
exist.
An actual thing,
at the very centre,
of every galaxy:
remarkable, colossal.
One hundred million suns,
squashed beyond physics.

Wheeled into the classroom, the large TV, the creaky wheels, our teacher, she pushes it and smiles.
I'm sat up front, first wooden bench, high on rickety wooden stool. Everyone is fixated in wonder.
The pure excitement of watching television in a science class. This is today's lesson, watching TV.
Energy grows in all of us, the expectation, the theatre of it. Trolley wheels stop creaking, centre stage.
The show, *Horizon*, recorded by the teacher last night, she just had to show it to us all. Today.
The room is silent, brown wooden and cold – outside grey. Here we learn about Biology, normally, nature
but these blackholes on the screen, so big. They are nature too. Apparently,
so the screen says. How can they be? Our very own galaxy,
all the 100 billion galaxies, they all have one. A super massive black hole.
Sarah shouts 'Is this right Miss? Is this really science?' Miss responds 'Yes'.
I'm totally transfixed. Behind me Kelly and Alex are giggling, some gossip,
but I don't care. This new information, immense. My mind sparked. I didn't know!
Could our Milky Way galaxy really be the host of something so enormous?
The scale and mass of it. It's all so vast. Yet, it is... real.
The centre of everything.

You can do it. You. Make maps of active galactic nuclei A.K.A supermassive black holes.
See, examine. Be the first. You know, some have jets that extend for hundreds of light years.
Some don't. It's a mystery. You'll get paid – to look at space, explore, travel to big telescopes.
Be the first to unravel it all, analyse data – this puzzling light.
You will be the centre. No-one else. No-one before you,
not this galaxy anyway, not in this way. It's an enigma,
this science,
a dark art.
Radio waves
extending,
tracing jets.
X-rays too,
mapping
the swirl.
Become
an artist,
a witch.
Interpret
EM light.
The secrets.
The event
horizon.
Singularity.
It will be you.
You, the centre.